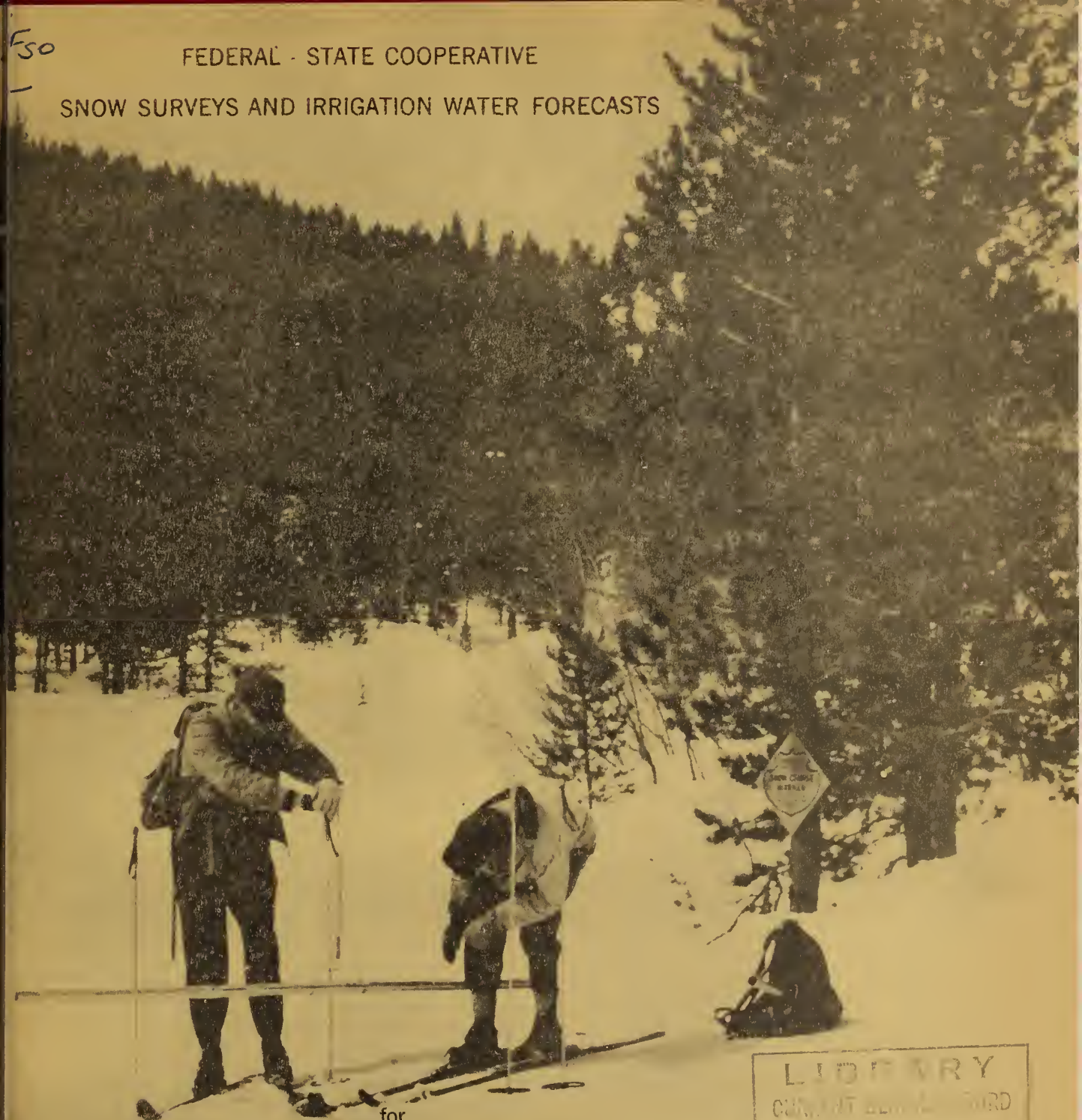
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FEDERAL - STATE COOPERATIVE

SNOW SURVEYS AND IRRIGATION WATER FORECASTS



for

# Oregon

By

Division of Irrigation, Soil Conservation Service
United States Department of Agriculture
and
Oregon Agricultural Experiment Station

Data included in this report were obtained by the agencies named above in cooperation with the Oregon State Engineer, U. S. Forest Service, National Park Service and other Federal, State and local organizations.

As of

MAY 1, 1953

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TO RECIPIENTS OF COOPERATIVE SNOW SURVEY
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Forecasts by U. S. Weather Bureau of total annual streamflow October-September, inclusive, at more than 300 gaging stations are issued monthly January through May in the publication WATER SUPPLY FORECASTS FOR THE WESTERN UNITED STATES.

Weather Bureau forecasts of runoff presented in this bulletin are computed from procedures based on mathematical analysis of the relation between precipitation and runoff.

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# FEDERAL-STATE COOPERATIVE

# SNOW SURVEYS AND WATER FORECASTS

# FOR

# OREGON

Report Prepared
by

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and
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Issued

May 9, 1953

Division of Irrigation Engineering
Soil Conservation Service
and
Oregon Agricultural Experiment Station
P. O. Box 1149
Medford, Oregon

# REVISED WATER SUPPLY OUTLOOK

## FOR OREGON

May 1, 1953

Revisions in Oregon's 1953 water supply outlook indicate the State should receive "fair" to "good" supplies this summer with deficiencies to be expected only in low elevation watersheds and the Owyhee and Crooked River basins. Reservoired water in 25 reporting reservoirs is 111 percent average and will satisfactorily augment expected water supplies. State-wide precipitation during April was about 100 percent average and temperatures were below to well-below normal.

Water content of mountain snow cover on 25 measured snow courses indicates 22 percent of April 1 snow has melted. Heaviest melt has occurred in the lower elevations below 5000 feet where water content of present snow cover is 48 percent of last month. Above 5000 feet, the water content of the present snow cover is 86 percent of last month. Water content of all remaining snow cover is 86 percent of May 1, 1952, and 104 percent of average.

Water supplies in storage in 25 reporting reservoirs are generally "excellent" with 9 reservoirs full, 9 reservoirs 90 percent full or better and 5 reservoirs 70 percent full or better. Clear Lake Reservoir is 66 percent full and Detroit is 20 percent full.

April precipitation in Oregon was quite divergent with two well defined areas of different precipitation. In general, the northeast half of the State received above average precipitation while the southwest half was somewhat below average. State-wide precipitation was about 100 percent average.

April temperatures were below to well-below average throughout the State, retarding snow-melt and runoff to such a degree that late season streamflow will be benefited.

See pages 2-5 for volume forecasts of 64 Oregon streams.

# REVISED OREGON STREAMFLOW FORECASTS - MAY 1, 1953

The following summarized runoff forecasts are based on mountain snow cover and on the assumption that precipitation and temperature during the remainder of the runoff season will be approximately normal. Appreciable deviations from normal of temperature and/or precipitation, especially during May or June, will correspondingly modify these forecasts.

| BASIN AND STREAM | Seasonal Streamflow in Thousand A.F. Forecast 1953 Apr-Sept. | Apr-July | % 10-Yr. Avg. | Measured Runoff* 1951 | 1950 | 10-Yr. Avg. 1941-50 |
|---|---|---|---|---|---|---|
| Columbia R., nr. The Dalles[1] | 84,000.0 | | | 109,986.0 | | 93,825.0 |
| | | | 90 | 117,528.0 | | |
| **NORTHCENTRAL OREGON** | | | | | | |
| Hood R., nr. Hood River[2] | 300.0 | | 94 | 358.8 | 497.6 | 318.8 |
| Hood R., nr. Hood River[2] | | 250.0 | 92 | 305.0 | 428.2 | 270.4 |
| Hood R., W. Fk., nr. Dee | 145.0 | | 93 | 156.4 | 228.6 | 155.3 |
| Hood R., W. Fk., nr. Dee | | 124.0 | 92 | 135.4 | 199.6 | 134.4 |
| White R., below Tygh Valley | 147.0 | | 95 | 202.6 | 233.1 | 155.0 |
| White R., below Tygh Valley | | 132.0 | 95 | 184.3 | 212.1 | 139.4 |
| **UMATILLA-WALLA WALLA** | | | | | | |
| Walla Walla R., So. Fk., nr. Milton | 63.0 | | 87 | 73.5 | 88.3 | 72.2 |
| Walla Walla R., So. Fk., nr. Milton | | 49.0 | 82 | 58.7 | 72.5 | 59.4 |
| Umatilla R., nr. Gibbon | 58.0 | | 62 | 77.2 | 106.7 | 92.9 |
| Umatilla R., at Pendleton | 112.0 | | 61 | 138.0 | 213.0 | 182.5 |
| Umatilla R., at Pendleton | | 109.0 | 61 | 133.8 | 208.0 | 177.5 |
| McKay Cr., nr. Pilot Rock | 20.0 | | 63 | 17.6 | 39.9 | 31.9 |
| McKay Cr., nr. Pilot Rock | | 19.5 | 62 | 17.5 | 39.8 | 31.6 |
| **NORTHEASTERN OREGON** | | | | | | |
| Grande Ronde R. at La Grande | 180.0 | | 90 | 165.1 | 235.8 | 199.2 |
| Catherine Cr., nr. Union | 83.0 | | 116 | 62.7 | 67.1 | 71.8 |
| Bear Cr., nr. Wallowa | 93.0 | | 127 | 56.5 | 75.5 | 73.2 |
| Lostine R., nr. Lostine | 160.0 | | 125 | 110.0 | 137.7 | 127.6 |
| Hurricane Cr., nr. Joseph | 56.0 | | 121 | 41.0 | 42.8 | 46.2 |
| Wallowa R., E. Fk., nr. Joseph[3] | 14.0 | | 121 | 9.8 | 10.8 | 11.6 |
| Wallowa R., E. Fk., nr. Joseph[3] | | 12.0 | 129 | 7.5 | 8.5 | 9.3 |
| Imnaha R., at Imnaha | 360.0 | | 119 | 267.5 | 287.7 | 303.0 |
| Powder R., at Salisbury | 59.0 | | 92 | 69.8 | 66.1 | 64.3 |
| Powder R., at Salisbury | | 58.0 | 93 | 68.8 | 64.0 | 62.4 |
| Burnt R., nr. Hereford[4] | 31.0 | | 70 | 43.0 | 49.7 | 43.6 |

*Discharge data from preliminary records of U. S. Geological Survey and Oregon State Engineer. 1952 records not available at this time.

[1]Forecast by Boise Office, Soil Conservation Service.

[2]Observed flow plus P.P.&L. Co. power canal.

[3]Includes power plant tailrace.

[4]Observed flow plus change in storage in Unity Reservoir.

Streamflow forecasts - May 1, 1953 (Cont'd)

| BASIN AND STREAM | Seasonal Streamflow in Thousand A.F. Forecast 1953 Apr-Sept. | Forecast 1953 Apr-July | % 10-Yr. Avg. | Measured Runoff* 1951 | Measured Runoff* 1950 | 10-Yr Avg. 1941-50 |
|---|---|---|---|---|---|---|
| **EASTERN OREGON** | | | | | | |
| Malheur R., nr. Drewsey | 70.0 | | 92 | 72.3 | 63.3 | 75.9 |
| Malheur R., N.Fk., at Beulah[5] | 58.0 | | 93 | 54.4 | 63.6 | 62.2 |
| Owyhee Res., net inflow[6] | 165.0 | | 41 | 417.8 | 326.2 | 400.0 |
| Owyhee Res., net inflow[6] | | 150.0 | 40 | 396.2 | 297.1 | 379.6 |
| John Day R. at Prairie City[7] | 47.0 | | 89 | 44.3 | 43.1 | 52.9 |
| John Day R. at Prairie City[7] | | 43.0 | 90 | 40.7 | 38.9 | 47.5 |
| John Day R., Mid. Fk. at Ritter | 113.0 | | 89 | 115.4 | 125.8 | 127.4 |
| John Day R., N.Fk.,nr. Dale | 232.0 | | 89 | 255.8 | 267.7 | 261.1 |
| Strawberry Cr., nr. Prairie City | 7.5 | | 89 | 7.9 | 7.1 | 8.4 |
| **HARNEY BASIN** | | | | | | |
| Silvies R., nr. Burns | 68.0 | | 69 | 116.4 | 83.8 | 97.7 |
| Donner und Blitzen R., nr. Frenchglen | 45.0 | | 69 | 58.7 | 57.1 | 65.0 |
| Trout Creek nr. Denio | 5.5 | | 65 | 8.2 | 6.0 | 8.5 |
| **CENTRAL OREGON** | | | | | | |
| Crooked R., nr. Post | 65.0 | | 53 | 128.0 | 141.2 | 121.9 |
| Ochoco Res., net inflow[8] | 20.0 | | 67 | c | 32.8 | 29.9 |
| Crescent Cr. at Crescent L.[9] | 22.8 | | 120 | c | 35.0 | 19.0 |
| Little Deschutes R., nr. Lapine[9] | 81.0 | | 95 | c | 137.1 | 85.0 |
| Little Deschutes R., nr. Lapine[9] | | 77.0 | 103 | c | 121.3 | 75.4 |
| Odell Cr., nr. Crescent | 32.6 | | 112 | 36.0 | 40.3 | 29.0 |
| Deschutes R., below Snow Cr. | 67.0 | | 116 | c | 79.4 | 57.9 |
| Crane Prairie Res., inflow[10] | 130.0 | | 112 | c | 155.3 | 115.8 |
| Deschutes R., at Pringle Falls[11] | 287.0 | | 109 | c | 330.3 | 263.9 |
| Deschutes R., at Pringle Falls[11] | | 176.0 | 111 | c | 179.0 | 158.6 |

*Discharge data from preliminary records of U. S. Geological Survey and Oregon State Engineer. 1952 records not available at this time.

[5]Observed flow + change in storage in Agency Valley Reservoir.

[6]From U.S.B.R. records of inflow.

[7]Observed flow + Prairie Power Canal.

[8]Observed flow of Ochoco Cr. + Canal + changes in storage of Ochoco Res.

[9]Observed flow + changes in storage of Crescent Lake Reservoir.

[10]From State Engineer's file #3220a, tabulating total inflow to Crane Prairie Reservoir and outflow, showing the loss in the reservoir.

[11]Observed flow + changes in storage in Crane Prairie and Wickiup Reservoirs

cData not currently available.

Streamflow Forecasts - May 1, 1953 (Cont'd)

| BASIN AND STREAM | Seasonal Streamflow in Thousand A.F. Forecast 1953 Apr-Sept. | Apr-July | % 10-Yr. Avg. | Measured Runoff* 1951 | 1950 | 10-Yr. Avg. 1941-50 |
|---|---|---|---|---|---|---|
| **CENTRAL OREGON (Cont'd)** | | | | | | |
| Deschutes R., at Benham Falls[12] | 518.0 | | 108 | c | 632.0 | 480.4 |
| Deschutes R., at Benham Falls[12] | | 351.0 | 109 | c | 416.6 | 322.4 |
| Tumalo Cr., nr. Bend[13] | 53.0 | | 110 | c | 60.4 | 48.0 |
| Squaw Cr., nr. Sisters | 56.0 | | 115 | c | 60.5 | 48.5 |
| **SOUTHCENTRAL OREGON** | | | | | | |
| Chewaucan R., nr. Paisley | | 65.0[a] | 102 | 88.4[a] | 67.2[a] | 64.4[a] |
| Deep Cr., above Adel | | 64.0[a] | 100 | 71.9[a] | 70.3[a] | 63.9[a] |
| Drew Reservoir, net Inflow | 23.4 | | 90 | b | b | 26.1[b] |
| **KLAMATH BASIN** | | | | | | |
| Sprague R., nr. Chiloquin | 292.0 | | 133 | 282.2 | 207.3 | 219.1 |
| Williamson R.below Sprague R. | 456.0 | | 126 | 457.6 | 354.4 | 361.5 |
| Williamson R.below Sprague R. | | 380.0 | 128 | 391.4 | 292.8 | 296.8 |
| Upper Klamath Lake, net inflow[14] | 620.0 | | 134 | 611.0 | 423.9 | 462.9 |
| Upper Klamath Lake, net inflow[14] | | 510.0 | 140 | 509.3 | 333.1 | 364.3 |
| Clear Lake Res., net inflow | 23.0 | | 58 | 32.4 | 33.9 | 39.6 |
| Gerber Res., net inflow | 13.0 | | 72 | 12.3 | 14.5 | 18.1 |
| **SOUTHERN OREGON** | | | | | | |
| Applegate R., nr. Ruch | 150.0 | | 130 | c | 140.2 | 114.8 |
| Illinois R., at Kerby | 208.0 | | 112 | 114.4 | 185.0 | 185.8 |
| Hyatt Res., net inflow[15] | 5.8 | | 100 | 3.8 | 6.3 | 5.8 |
| Fourmile Lake, net inflow[16] | 7.8 | | 100 | c | 8.6 | 7.8 |
| Little Butte Cr., N. Fk., below Fish Lake[17] | 14.3 | | 100 | c | 17.9 | 14.3 |

*Discharge data from preliminary records of U. S. Geological Survey and Oregon State Engineer. 1952 records not available at this time.

[12]Observed flow + changes in storage in Crane Prairie, Wickiup, and Crescent Lake Reservoirs.

[13]Observed flow + Columbia Southern Canal.

[14]From COPCO records of inflow.

[15]Observed flow of Keene Cr. Canal below Hyatt Lake + storage changes + 1600 a.f. for estimated evaporation during April-September period.

[16]Observed outflow into Cascade Canal + storage changes + 1600 a.f. for estimated evaporation during April-September period.

[17]Observed flow + changes in storage in Fish Lake Reservoir + 90% of Cascade Canal inflow.

[a]April-June rather than April-July.

[b]Records from 1942 to data are partially incomplete.

[c]Data not currently available.

Streamflow Forecasts - May 1, 1953 (Cont'd)

| BASIN AND STREAM | Seasonal Streamflow in Thousand A.F. Forecast 1953 Apr-Sept. | Apr-July | % 10-Yr. Avg. | Measured Runoff* 1951 | 1950 | 10-Yr. Avg. 1941-50 |
|---|---|---|---|---|---|---|
| SOUTHERN OREGON (Cont'd) | | | | | | |
| Rogue R. above Prospect | 391.0 | | 128 | 345.5 | 380.5 | 305.1 |
| Rogue R. above Prospect | | 355.0 | 129 | 282.3 | 322.2 | 255.0 |
| Rogue R., Mid. Fk., nr. Prospect[18] | 81.0 | | 110 | 77.8 | 82.5 | 73.6 |
| Rogue R., Mid. Fk., nr. Prospect[18] | | 65.0 | 111 | 59.7 | 65.4 | 58.3 |
| Rogue R., So. Fk., nr. Prospect[19] | 80.0 | | 107 | 76.2 | 91.8 | 74.6 |
| Rogue R., So. Fk., nr. Prospect[19] | | 71.0 | 112 | 64.4 | 79.8 | 63.2 |
| Rogue R., below So. Fk. | 780.0 | | 119 | 739.0 | 808.8 | 656.9 |
| Rogue R., below So. Fk. | | 685.0 | 129 | 588.4 | 662.0 | 532.4 |
| Rogue R., at Raygold, nr. Central Point | 1080.0 | | 122 | 887.7 | 1057.6 | 882.3 |
| Rogue R., at Raygold, nr. Central Point | | 970.0 | 131 | 727.4 | 900.3 | 739.7 |
| Rogue R. at Grants Pass | 1040.0 | | 121 | 823.9 | 1061.8 | 857.8 |
| Clearwater R., above Trap Creek | 78.0 | | 126 | 80.8 | 71.1 | 62.0 |
| No. Umpqua R. below Lake Cr. | 210.0 | | 131 | 195.7 | 189.0 | 160.5 |
| No. Umpqua R., at Toketee Falls[20] | 470.0 | | 126 | 445.3 | 467.4 | 372.9 |
| WILLAMETTE VALLEY | | | | | | |
| Willamette R., Mid. Fk., at Lowell | 936.0 | | 109 | 796.9 | 1170.0[a] | 855.0[a] |
| McKenzie R., at McKenzie Bridge | 612.0 | | 109 | 658.4 | 771.8 | 562.5 |
| McKenzie R., nr. Vida | 1312.0 | | 108 | 1276.0 | 1725.2 | 1214.0 |
| Clackamas R. at Big Bottom | 162.0 | | 99 | 192.8 | 235.4 | 163.4 |
| Clackamas R. at Big Bottom | | 135.0 | 102 | 155.9 | 196.1 | 132.5 |
| Clackamas R., nr. Cazadero | 760.0 | | 95 | c | 1158.3 | 796.3 |

*Discharge data from preliminary records of U. S. Geological Survey and Oregon State Engineer. 1952 records not available at this time.

[18]Observed flow + Middle Fork Power Canal.

[19]Observed flow + South Fork Power Canal.

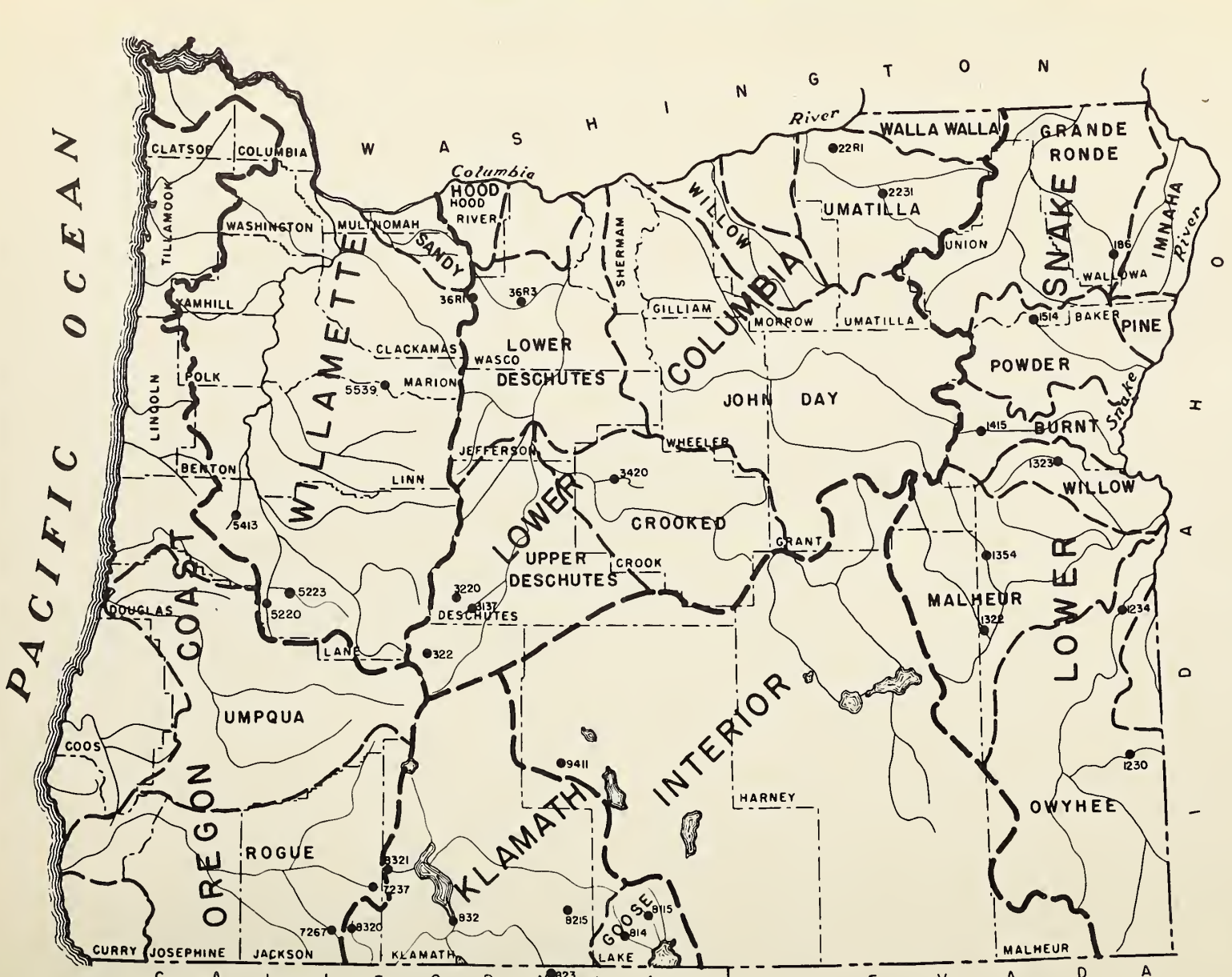
[20]Sum of observed flow at North Umpqua River above Clearwater River (#7424) and Clearwater River at Mouth (#7423)

[a]Estimated as percent of flow at Eula.

[c]Data not currently available.



# IMPORTANT OREGON RESERVOIRS




| RESERVOIR NAME | NUMBER |
|---|---|
| Agency Valley | 1354 |
| Antelope | 1230 |
| Clear Lake | 823 |
| Cleor Lake | 36R1 |
| Cold Springs | 22R1 |
| Cottage Grove | 5220 |
| Cottonwood | 8115 |
| Crane Prairie | 3220 |
| Crescent Lake | 322 |
| Detroit | 5539 |
| Dorena | 5223 |
| Drew Creek | 814 |
| Emigront Gap | 7267 |
| Fern Ridge | 5413 |
| Fish Lake | 7237 |
| Four Mile Lake | 8321 |
| Gerber | 8215 |
| Hyatt Prairie | 8320 |
| McKay | 2231 |
| Ochoco | 3420 |
| Owyhee | 1234 |
| Rock Creek | 36R3 |
| Thief Valley | 1514 |
| Thompson Valley | 9411 |
| Unity | 1415 |
| Upper Klamath Lake | 832 |
| Wallowa Lake | 186 |
| Warm Springs | 1322 |
| Wickiup | 3137 |
| Willow Creek No. 3 | 1323 |

N

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SCALE IN MILES

U.S. DEPARTMENT OF AGRICULTURE, SOIL CONSERVATION SERVICE

RESEARCH
M. L. NICHOLS, Chief

ARS-SCS-PORTLAND, ORE., FEB. 1958

7-L-3060

STATUS OF OREGON RESERVOIR STORAGE - MAY 1, 1953

| BASIN and STREAM | RESERVOIR | USABLE CAPACITY (Thousand Acre feet) | THOUSAND ACRE FEET IN STORAGE ABOUT MAY FIRST 1953 | 1952 | 1951 | 1950 | 10-yr.Avg. 1941-50 |
|---|---|---|---|---|---|---|---|
| | | **UPPER COLUMBIA DRAINAGE** | | | | | |
| | | **Lower Snake in Oregon** | | | | | |
| Owyhee | Antelope | 36.5 | 29.2 | N.R. | 35.0 | N.R. | 31.0[d] |
| | Owyhee | 715.0 | 553.9 | 699.8 | 715.0 | 644.7 | 651.3 |
| Malheur | Warm Springs | 191.0 | 194.9 | 186.1 | 120.4 | 72.4 | 138.7 |
| | Agency Valley | 60.0 | 60.0 | 60.1 | 50.0 | 47.5 | 56.4 |
| Burnt | Unity | 25.2 | 25.2 | 17.3 | 22.9 | 20.8 | 22.5 |
| Grande Ronde | Wallowa Lake | 40.9 | 29.8 | 15.6 | 20.8 | 12.3 | 23.8 |
| | | **LOWER COLUMBIA DRAINAGE** | | | | | |
| Umatilla | McKay | 74.0 | 71.1 | 59.8 | 68.2 | 67.0 | 66.6 |
| | Cold Springs | 50.0 | 48.6 | 45.5 | 48.1 | 49.9 | 48.4 |
| Deschutes | Ochoco | 46.0 | 47.2 | 43.6 | 46.8 | 33.6 | 34.2 |
| | Crescent Lake | 54.9 | 50.0 | 46.5 | 48.1 | 51.8 | 41.9 |
| | Crane Prairie | 55.3 | 51.0 | 52.0 | 57.0 | 50.7 | 40.3 |
| | Wickiup | 180.0 | 196.0 | 157.6 | 183.7 | 175.0 | 97.7[e] |
| Willamette | Cottage Grove | 30.1[a] | 28.8 | 28.1 | 23.8 | 28.7 | 27.1[e] |
| | Dorena | 70.5[a] | 53.9 | 53.8 | 49.8 | 53.2 | -- |
| | Fern Ridge | 94.2[a] | 87.1 | 76.8 | 72.6 | 86.0 | 73.8[f] |
| | Detroit | 340.0[a] | 68.2 | -- | -- | -- | -- |
| | | **WEST COAST DRAINAGE** | | | | | |
| Rogue | Fish Lake | 7.8 | 7.1 | 6.5 | 6.9 | 5.4 | 5.2 |
| | Fourmile Lake[b] | 16.1 | 15.5 | 8.7 | 12.9 | 11.0 | 8.2 |
| | Emigrant Gap | 8.3 | 8.3 | 8.3 | 7.8 | 8.4 | 8.2 |
| | Hyatt Prairie[b] | 16.1 | 16.1 | 12.2 | 9.6 | 8.1 | 8.7 |
| Klamath | Upper Klamath L. | 584.0[c] | 534.0 | 532.3 | 557.5 | 531.4 | 477.9 |
| | Gerber | 94.0 | 81.4 | 81.6 | 59.9 | 51.4 | 58.0 |
| | Clear Lake | 440.2 | 290.2 | 275.9 | 145.5 | 164.0 | 259.5 |
| Goose Lake | Cottonwood | 4.1 | 4.7 | 2.8 | 4.6 | 4.3 | 3.3[g] |
| | Drew | 62.5 | 64.8 | 62.5 | 62.9 | 62.5 | 54.7[h] |

N.R. - No Report

[a] Storage space reserved for flood control.

[b] By ditch to Rogue River side from Klamath Drainage.

[c] Based on gage zero elevation of 4135.0.

[d] Excluding 1948-50.

[e] 1943-1950.

[f] 1942-1950.

[g] Excluding 1942-43.

[h] Excluding 1942.

## OREGON SNOW SURVEYS - ABOUT MAY 1, 1953

| DRAINAGE BASIN and SNOW COURSE | Number or State | Elev. | SNOW COVER MEASUREMENTS: Date of Survey | Snow Depth (In.) | Water Content (In.): 1953 | Same Approx. Date: 1952 | Same Approx. Date: 1951 | Past Record: Yrs. of Rcd. | Past Record: Avg. Water Cont. (In.) |
|---|---|---|---|---|---|---|---|---|---|
| **UPPER COLUMBIA DRAINAGE** | | | | | | | | | |
| **LOWER SNAKE IN OREGON** | | | | | | | | | |
| OWYHEE RIVER | | | | | | | | | |
| Silver City | Idaho12 | 6400 | 5/3 | 14.0 | 6.6[a] | 17.6 | 1.2 | 7 | 5.2 |
| South Mtn. No.2 | Idaho13 | 6340 | 4/30 | T | T[a] | -- | -- | 0 | -- |
| BURNT RIVER | | | | | | | | | |
| Blue Mtn. Summit | 141 | 5098 | 4/30 | 1.8 | 0.8 | 0.0 | 0.0 | 3 | 0.5 |
| IMNAHA RIVER | | | | | | | | | |
| *Aneroid Lake No. 1 | 183 | 7480 | Not Measured | | | 46.8 | 37.4 | 7 | 35.4 |
| *Aneroid Lake No. 2 | 183A | 7000 | Not Measured | | | 34.5 | 28.2 | 4 | 31.0 |
| GRANDE RONDE RIVER | | | | | | | | | |
| Aneroid Lake No. 1 | 183 | 7480 | Not Measured | | | 46.8 | 37.4 | 7 | 35.4 |
| Aneroid Lake No. 2 | 183A | 7000 | Not Measured | | | 34.5 | 28.2 | 4 | 31.0 |
| Beaver Reservoir | 188 | 5340 | 5/4 | 23.3 | 8.9 | -- | -- | 0 | -- |
| Tollgate | 212 | 5070 | 5/8 | 37.7 | 16.6[a] | 16.4 | 10.0 | 3 | 18.8 |
| Meacham | 221 | 4300 | 5/8 | 0.0 | 0.0 | 0.0 | 0.0 | 3 | 2.6 |
| **LOWER COLUMBIA DRAINAGE** | | | | | | | | | |
| WALLA WALLA RIVER | | | | | | | | | |
| Tollgate | 212 | 5070 | 5/8 | 37.7 | 16.6[a] | 16.4 | 10.0 | 3 | 18.8 |
| UMATILLA RIVER | | | | | | | | | |
| Tollgate | 212 | 5070 | 5/8 | 37.7 | 16.6[a] | 16.4 | 10.0 | 3 | 18.8 |
| Meacham | 221 | 4300 | 5/8 | 0.0 | 0.0 | 0.0 | 0.0 | 3 | 2.6 |
| Emigrant Springs | 222 | 3925 | 5/8 | 0.0 | 0.0 | 0.0 | 0.3 | 3 | 0.1 |
| JOHN DAY RIVER | | | | | | | | | |
| Blue Mtn. Summit | 141 | 5098 | 4/30 | 1.8 | 0.8 | 0.0 | 0.0 | 3 | 0.5 |

*Not located directly on this drainage area.
[a]Telegraphic

# OREGON SNOW SURVEYS - ABOUT MAY 1, 1953

| DRAINAGE BASIN and SNOW COURSE | Number or State | Elev. | SNOW COVER MEASUREMENTS: Date of Survey | Snow Depth (In.) | Water Content (In.): 1953 | Same Approx. Date: 1952 | Same Approx. Date: 1951 | Past Record: Yrs. of Rod. | Past Record: Avg. Water Cont. (In.) |
|---|---|---|---|---|---|---|---|---|---|
| **DESCHUTES RIVER** | | | | | | | | | |
| New Dutchman Flat | 324A | 6400 | 4/30 | 129.3 | 66.6 | 72.7 | 60.2 | 8 | 63.9 |
| Windigo Pass | 744 | 5800 | 4/29 | 112.8 | 52.0 | 65.8 | 48.2 | 4 | 54.3 |
| Three Creeks Mdws. | 331 | 5600 | 5/1 | 39.4 | 17.9 | 14.4 | 18.1 | 4 | 17.8 |
| Willamette Pass | 323 | 5600 | 4/30 | 112.7 | 51.4 | 62.0 | 43.8 | 4 | 51.0 |
| Tangent | ** | 5400 | 4/30 | 29.4 | 13.6 | 15.3 | -- | 1 | 15.3 |
| Cascade Summit | 321 | 4880 | 5/2 | 65.1 | 30.2 | 37.2 | 22.2 | 7 | 32.7 |
| New Crescent Lake | 325A | 4800 | 4/29 | 18.4 | 8.2 | 4.0 | -- | 1 | 4.0 |
| *Chemult | 834 | 4760 | Measurement Delayed | | | 1.2 | 0.0 | 6 | 0.5 |
| Crescent Lake | 325 | 4760 | 4/29 | 0.0 | 0.0 | 0.0 | 0.0 | 3 | 4.3 |
| Hogg Pass | 351 | 4755 | Measurement Delayed | | | 55.8 | 47.6 | 6 | 57.2 |
| Black Pine Spg. | ** | 4600 | 5/1 | 0.0 | 0.0 | 0.0 | -- | 1 | 0.0 |
| Hungry Flat | ** | 4400 | 4/30 | 0.0 | 0.0 | 0.0 | -- | 1 | 0.0 |
| Clear Lake | 361 | 3500 | Measurement Delayed | | | 6.0 | 6.2 | 3 | 12.0 |
| **WILLAMETTE VALLEY STREAMS** | | | | | | | | | |
| SANDY RIVER[1] | | | | | | | | | |
| Phlox Point | 452 | 5600 | 5/7 | 126.8 | 72.2 | 62.8 | 65.7 | 14 | 60.6 |
| Still Creek | 451 | 3700 | 5/7 | 29.2 | 14.3 | 11.0 | 20.5 | 13 | 15.5 |
| *Clear Lake | 361 | 3500 | Measurement Delayed | | | 6.0 | 6.2 | 3 | 12.0 |
| CLACKAMAS RIVER | | | | | | | | | |
| *Clear Lake | 361 | 3500 | Measurement Delayed | | | 6.0 | 6.2 | 3 | 12.0 |
| Peavine Ridge | 591 | 3500 | 5/2 | 38.6 | 17.2 | 18.0 | 18.9 | 8 | 17.8 |
| SANTIAM RIVERS | | | | | | | | | |
| Hogg Pass | 351 | 4755 | Measurement Delayed | | | 55.8 | 47.6 | 6 | 57.2 |
| Santiam Junction | 552 | 3990 | Measurement Delayed | | | 22.0 | 6.1 | 5 | 19.1 |
| Marion Forks | 553 | 2730 | Measurement Delayed | | | 0.0 | 0.0 | 4 | 4.9 |
| Whitewater Bridge | ** | 2175 | Measurement Delayed | | | 0.0 | 0.0 | 2 | 0.0 |
| Detroit (new town) | ** | 1500+ | Measurement Delayed | | | 0.0 | 0.0 | 2 | 0.0 |
| Detroit Dam | ** | 1580 | Measurement Delayed | | | 0.0 | 0.0 | 2 | 0.0 |
| Mill City | ** | 826 | Measurement Delayed | | | 0.0 | 0.0 | 2 | 0.0 |
| McKENZIE RIVER | | | | | | | | | |
| Hogg Pass | 351 | 4755 | Measurement Delayed | | | 55.8 | 47.6 | 6 | 57.2 |
| Santiam Junction | 552 | 3990 | Measurement Delayed | | | 22.0 | 6.1 | 5 | 19.1 |

*Not located directly on this drainage area.

**Auxiliary snow station; average of 3 to 5 measurements taken at same point each survey.

[1]Not strictly a part of the Willamette Drainage; these surveys are indicative of west slope conditions.

# OREGON SNOW SURVEYS - ABOUT MAY 1, 1953

| DRAINAGE BASIN and SNOW COURSE | Number or State | Elev. | Snow Cover Measurements: Date of Survey | Snow Depth (In.) | Water Content (In.): 1953 | Same Approx. Date: 1952 | Same Approx. Date: 1951 | Past Record: Yrs. of Rcd. | Past Record: Avg. Water Cont. (In.) |
|---|---|---|---|---|---|---|---|---|---|
| **WILLAMETTE VALLEY STREAMS (Cont'd)** | | | | | | | | | |
| MIDDLE FORK WILLAMETTE RIVER | | | | | | | | | |
| Willamette Pass | 323 | 5600 | 4/30 | 112.7 | 51.4 | 62.0 | 43.8 | 4 | 51.0 |
| Cascade Summit | 321 | 4880 | 5/2 | 65.1 | 30.2 | 37.2 | 22.2 | 7 | 32.7 |
| Salt Creek Falls | ** | 4000 | 5/2 | 34.9 | 14.6 | 18.6 | 5.4 | 3 | 17.7 |
| Railroad Overpass | ** | 2750 | 5/2 | 0.0 | 0.0 | -- | 0.0 | 2 | 0.0 |
| McCredie Spring | ** | 2120 | 5/2 | 0.0 | 0.0 | 0.0 | 0.0 | 3 | 0.0 |
| Oakridge | ** | 1310 | 5/2 | 0.0 | 0 0 | 0.0 | 0.0 | 2 | 0.0 |
| Meridian Dam | ** | 750 | 5/2 | 0.0 | 0.0 | 0.0 | 0.0 | 2 | 0.0 |
| Snow Line: Between 2750' and 4000' | | | | | | | | | |
| **OREGON COAST DRAINAGE** | | | | | | | | | |
| **UMPQUA RIVER** | | | | | | | | | |
| Windigo Pass | 744 | 5800 | 4/29 | 112.8 | 52.0 | 65.8 | 48.2 | 4 | 54.3 |
| Diamond Lake | 743 | 5315 | 4/28 | 51.3 | 24.0 | 26.0 | 12.8 | 13 | 15.8 |
| **ROGUE RIVER** | | | | | | | | | |
| *Park Headquarters | 838 | 6450 | 4/28 | 139.4 | 71.5 | 92.9 | 61.4 | 9 | 62.2 |
| *Annie Spring | 831 | 6018 | 4/28 | 107.7 | 51.8 | 73.7 | 46.8 | 12 | 42.8 |
| *Fourmile Lake | 7223 | 6000 | 4/30 | 50.9 | 25.6[a] | -- | -- | 0 | -- |
| Billie Creek Div. | 722 | 5300 | 5/3 | 45.2 | 17.2[a] | -- | T | 4 | 18.1 |
| *Hyatt Prairie Res. | 723 | 4900 | Measurement delayed | | | 0.0[a] | 0.0 | 4 | 2.2 |
| Fish Lake | 725 | 4865 | 5/4 | 5.2 | 2.0[a] | -- | 0.0 | 3 | 4.5 |
| Silver Burn | 7219 | 3720 | 5/1 | b | 1.3 | -- | 0.0[a] | 2 | 3.2 |
| South Fork Canal | 7218 | 3500 | 5/1 | 0.0 | 0.0 | -- | 0.0 | 1 | 0.0 |
| **KLAMATH LAKE BASIN** | | | | | | | | | |
| Park Headquarters | 838 | 6450 | 4/28 | 139.4 | 71.5 | 92.9 | 61.4 | 9 | 62.2 |
| Annie Spring | 831 | 6018 | 4/28 | 107.7 | 51.8 | 73.7 | 46.8 | 12 | 42.8 |
| Fourmile Lake | 7223 | 6000 | 4/30 | 50.9 | 25.6[a] | -- | -- | 0 | -- |
| *Quartz Mountain | 811 | 5320 | 5/4 | 0.0 | 0.0 | 0.0 | 0.0 | 2 | 0.0 |
| Billie Creek Div. | 722 | 5300 | 5/3 | 45.2 | 17.2 | -- | T | 4 | 18.1 |
| Lake of the Woods | 835 | 4960 | Measurement delayed | | | 12.1 | 0.2 | 7 | 6.0 |
| Hyatt Prairie Res. | 723 | 4900 | Measurement delayed | | | 0.0[a] | 0.0 | 4 | 2.2 |
| Chemult | 834 | 4760 | Measurement delayed | | | 1.2 | 0.0 | 6 | 0.5 |

*Not located directly on this drainage area.
**Auxiliary snow station; average of 3 to 5 measurements taken at same point each survey.
[a]Telegraphic.
[b]Not reported by snow surveyor.

OREGON SNOW SURVEYS - ABOUT MAY 1, 1953

| DRAINAGE BASIN and SNOW COURSE | Number or State | Elev. | SNOW COVER MEASUREMENTS: Date of Survey | Snow Depth (In.) | Water Content (In.): 1953 | Same Approx. Date: 1952 | Same Approx. Date: 1951 | Past Record: Yrs. of Rcd. | Past Record: Avg. Water Cont. (In.) |
|---|---|---|---|---|---|---|---|---|---|
| GOOSE LAKE BASIN | | | | | | | | | |
| Quartz Mountain | 811 | 5320 | 5/4 | 0.0 | 0.0 | 0.0 | 0.0 | 2 | 0.0 |
| INTERIOR DRAINAGE | | | | | | | | | |
| CHEWAUCAN RIVER | | | | | | | | | |
| *Quartz Mountain | 811 | 5320 | 5/4 | 0.0 | 0.0 | 0.0 | 0.0 | 2 | 0.0 |

DELAYED DATA

APRIL 1, 1953

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| POWDER RIVER | | | | | | | | | |
| Goodrich Lake | 157 | 6775 | 4/6 | 108.0 | 48.0 | 51.0 | 42.0 | 5 | 41.4 |

APRIL 15, 1953

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| KLAMATH LAKE BASIN | | | | | | | | | |
| Lake of the Woods | 835 | 4960 | 4/17 | 32.8 | 12.8 | 19.4 | -- | 1 | 19.4 |

*Not located directly on this drainage area.

## OREGON PRECIPITATION[a]

| DRAINAGE DIVISIONS | CURRENT YEAR Oct. 1, 1952-May 1, 1953 P | CURRENT YEAR Oct. 1, 1952-May 1, 1953 D | LAST YEAR Oct. 1, 1951-May 1, 1952 P | LAST YEAR Oct. 1, 1951-May 1, 1952 D |
|---|---|---|---|---|
| Southeastern | 5.72 | - 0.99 | 8.21 | + 1.61 |
| Southcentral | 6.41 | - 0.67 | 8.78 | + 1.89 |
| Central | 9.05 | + 1.03 | 8.33 | + 0.15 |
| Columbia River | 12.64 | + 0.43 | 11.22 | - 0.92 |
| Wallowa Mountains | 12.21 | - 0.78 | 11.63 | - 1.40 |
| Blue Mountains | 10.96 | + 0.52 | 11.17 | + 0.26 |
| Southern | 23.36 | + 1.96 | 28.38 | + 6.96 |
| Willamette Valley | 45.63 | + 2.10 | 47.15 | + 2.89 |

P - Inches Precipitation  D - Inches Departure from Normal

Southeastern - Malheur and Owyhee drainages.

Southcentral - Interior Basin drainages and Goose Lake.

Central - Deschutes and Crooked drainages.

Columbia River - Lower valleys of the Walla Walla, Umatilla, John Day, Deschutes and Hood River drainages.

Wallowa Mountains - Imnaha, Wallowa, Catherine, Eagle, and Pine drainages.

Blue Mountains - Upper valleys of the Burnt, Powder, Grande Ronde, Umatilla, Walla Walla, John Day, Silvies and Malheur drainages.

Southern - Umpqua, Rogue and Klamath drainages

Willamette Valley - All Willamette drainages.

NOTE: Stations used for determining the averages for the current year are not necessarily the same as those used last year.

[a]Preliminary data computed from Weather Bureau records.

# INDEX OF SNOW COURSE LOCATIONS

| SNOW COURSE | Number or State | Section | Township | Range | Elevation |
|---|---|---|---|---|---|
| Althouse | 7216 | 17 | 41S | 7W | 4400 |
| Aneroid Lake #1 | 183 | 16 | 4S | 45E | 7480 |
| Aneroid Lake #2 | 183A | 16 | 4S | 45E | 7000 |
| Annie Spring | 831 | 19 | 31S | 6E | 6018 |
| Anthony Lake | 155 | 18 | 7S | 37E | 7125 |
| Arbuckle Mountain | 241 | 33 | 4S | 29E | 5400 |
| Bald Mountain | Nev.1 | 17 | 45N | 21E | 6720 |
| Barney Creek | 143 | 16 | 14S | 36E | 5950 |
| Bear Creek | Nev.1 | 31 | 46N | 58E | 7800 |
| Beatty (COPCO) | Oreg. | 22 | 36S | 12E | 4300 |
| Beaver Reservoir | 188 | 8 | 5S | 37E | 5340 |
| Beech Creek Summit | 246A | 4 | 12S | 30E | 4800 |
| Big Bend | Nev.6 | 30 | 45N | 56E | 6700 |
| Big Bottom | ** | 25 | 6S | 7E | 2118 |
| Big Red Mountain | 729 | 31 | 40S | 1W | 6500 |
| Billie Creek Divide | 722 | 30 | 36S | 5E | 5300 |
| Black Pine Spring | ** | 14 | 16S | 9E | 4600 |
| Blue Mountain Springs | 133 | 21 | 15S | 35E | 5900 |
| Blue Mountain Summit | 141 | 6 | 12S | 36E | 5098 |
| Bly 101 Ranch (COPCO) | Oreg. | 22 | 35S | 14E | 4800 |
| Bourne | 154 | 33 | 8S | 37E | 5800 |
| Breitenbush | 551 | 21 | 9S | 7E | 2325 |
| Brooks Meadows | 431 | 2 | 2S | 10E | 4300 |
| Caldwell Ranch | 326 | 30 | 21S | 8E | 4400 |
| Camas Creek | 911A | 5 | 39S | 21E | 5720 |
| Camp Carson | 187 | 33 | 6S | 36E | 5970 |
| Cascade Summit | 321 | 7 | 23S | 6E | 4880 |
| Champion | 522 | 12 | 23S | 1E | 4500 |
| Charlton Lake | 327 | 23 | 21S | 6E | 5750 |
| Chemult | 834 | 21 | 27S | 8E | 4760 |
| Chiloquin (COPCO) | Oreg. | 34 | 34S | 7E | 4187 |
| Clackamas Lake | 592 | 35 | 5S | 8½E | 3400 |
| Clear Lake | 361 | 29 | 4S | 9E | 3500 |
| Coverdale | 171 | 22 | 5S | 47E | 4250 |
| Crane Prairie | 137 | 24 | 16S | 34E | 5375 |
| Crescent Lake | 325 | 11 | 24S | 6E | 4760 |
| Crowder Flat | Calif. | 30 | 47N | 11E | 5200 |
| Crystal (COPCO) | Oreg. | 26 | 34S | 6E | 4200 |
| Derr | 343 | 14 | 13S | 23E | 5670 |
| Dead Horse Grade | ** | 13 | 16S | 7E | 3800 |
| Detroit Dam | ** | 7 | 10S | 5E | 1580 |
| Detroit (new town) | ** | 1 | 10S | 5E | 1500+ |
| Diamond Lake | 743 | 29 | 27S | 6E | 5315 |
| Disaster Peak | Nev.6 | 8 | 47N | 34E | 6500 |
| Dixie Springs | 244 | 28 | 11S | 34E | 6650 |
| Dooley Mountain | 156 | 32 | 11S | 40E | 5430 |

(COPCO) - Water content determined by melting a measured sample. (The California Oregon Power Co.'s Station)

** - Auxiliary snow station; average of 3 to 5 samples taken at same point each survey.

INDEX OF SNOW COURSE LOCATIONS (Cont'd)

| SNOW COURSE | Number or State | Section | Township | Range | Elevation |
|---|---|---|---|---|---|
| Eilertson Meadows | 151B | 18 | 8S | 38E | 5400 |
| Emigrant Springs | 222 | 29 | 1N | 35E | 3925 |
| Fish Creek | 952 | 4 | 33S | 33E | 7900 |
| Fish Lake | 725 | 3 | 37S | 4E | 4865 |
| Fort Klamath (COPCO) | Oreg. | 22 | 33S | 7½E | 4150 |
| Fourmile Lake | 7223 | 9 | 36S | 5E | 6000 |
| Fox Creek | Nev.2 | 33 | 46N | 58E | 6800 |
| Fry Canyon | Nev.7 | 31 | 43N | 54E | 6700 |
| Gerber | 839 | 12 | 39S | 13E | 4850 |
| Gold Center | 249 | 21 | 9S | 36E | 5340 |
| Gold Creek | Nev.5 | 31 | 45N | 56E | 6600 |
| Golden Curry Creek | ** | 1 | 23S | 1E | 3136 |
| Goodrich Lake | 157 | 34&35 | 8S | 38E | 6775 |
| Granite Peak | Nev.4 | 22 | 44N | 39E | 7800 |
| Grayback Peak | 727 | 9 | 40S | 5W | 6000 |
| Greenpoint Reservoir | 433 | 28 | 2N | 9E | 3400 |
| Harriman Lodge (COPCO) | Oreg. | 3 | 36S | 6E | 4200 |
| Hobart Lake | 7221 | 17 | 40S | 3E | 5010 |
| Hogg Pass | 351 | 24 | 13S | 7½E | 4755 |
| Hungry Flat | ** | 30 | 18S | 11E | 4400 |
| Hyatt Prairie Reservoir | 723 | 15 | 39S | 3E | 4900 |
| Idlewild Camp | 961A | 33 | 20S | 31E | 5200 |
| Irish-Taylor | 329 | 25 | 20S | 6E | 5500 |
| Izee Summit | 964 | 28 | 16S | 29E | 5293 |
| Kirk (COPCO) | Oreg. | 1 | 33S | 7E | 4533 |
| Lake Creek | 136 | 10 | 16S | 33½E | 5120 |
| Lake Harriet | ** | 4 | 6S | 7E | 2045 |
| Lake of the Woods | 835 | 11 | 37S | 5E | 4960 |
| Layng Creek R.S. | ** | 31 | 21S | 1E | 1200 |
| Little Red Mountain | 7210 | 25 | 40S | 2W | 6500 |
| Lost Creek Ranch | ** | 24 | 16S | 6E | 1956 |
| Lower Buckskin | Nev.1 | 25 | 45N | 39E | 6700 |
| Lower Jack Creek | Nev.9 | 18 | 42N | 53E | 6800 |
| Lucky Strike | 223 | 28 | 3S | 32E | 5050 |
| Lund Park | ** | 22 | 22S | 1E | 1740 |
| Marion Forks | 553 | 28 | 11S | 7E | 2730 |
| Marks Creek | 344 | 25 | 12S | 19E | 4540 |
| Martin Creek | Nev.3 | 18 | 44N | 40E | 6700 |
| Mary's Peak | 541 | 21 | 12S | 7W | 3620 |
| McCredie Spring | ** | 36 | 21S | 4E | 2120 |
| McKenzie | 531 | 35 | 15S | 7½E | 4800 |
| McKenzie Bridge | ** | 13 | 16S | 5E | 1372 |
| Meacham | 221 | 24&25 | 1S | 35E | 4300 |
| Meridian Dam | ** | 13 | 19S | 1W | 750 |
| Midas | Nev.6 | 18 | 39N | 46E | 7200 |
| Mill Creek | 922 | 1 | 34S | 17E | 6200 |
| Mill City | ** | 29 | 9S | 3E | 826 |
| Moss Spring | 186A | 28 | 3S | 41E | 5850 |
| New Crescent Lake | 325A | 11 | 24S | 6E | 4800 |
| New Dutchman Flat | 324A | 21 | 18S | 9E | 6400 |
| North Umpqua | 742 | 19 | 26S | 6E | 4215 |
| Oakridge | ** | 16 | 21S | 3E | 1310 |
| Ochoco Meadows | 341 | 21 | 13S | 20E | 5200 |
| Olive Lake | 245 | 14 | 9S | 33½E | 6000 |
| Park Headquarters | 838 | 8 | 31S | 6E | 6450 |

INDEX OF SNOW COURSE LOCATIONS (Cont'd)

| SNOW COURSE | Number or State | Section | Township | Range | Elevation |
|---|---|---|---|---|---|
| Peavine Ridge | 59 I | 14&15 | 6S | 7E | 3500 |
| Phlox Point-Mt. Hood | 452 | 6 | 3S | 9E | 5600 |
| Quartz Mountain | 811 | 2 | 38S | 16E | 5320 |
| Quartz Mountain (COPCO) | Oreg. | 33 | 37S | 16E | 5504 |
| Railroad Overpass | *** | 27 | 22S | 5E | 2750 |
| Red Hill | 434 | 21 | 1S | 9E | 4400 |
| Rock Spring | 134 | 23 | 18S | 32E | 5100 |
| Rodeo Flat | Nev.8 | 36 | 43N | 53E | 6800 |
| Salt Creek Falls | *** | 33 | 22S | 6E | 4000 |
| Santiam Junction | 552 | 14 | 13S | 7E | 3990 |
| Schneider Meadows | 161 | 35 | 6S | 45E | 5400 |
| Schoolmarm | 248 | 28 | 4S | 34E | 4775 |
| Scragg Mountain | 7220 | 9 | 47N | 10W | 6200 |
| Seven Lakes #1 | 7211 | 3 | 34S | 5E | 6800 |
| Seven Lakes #2 | 7212 | 26 | 33S | 5E | 6200 |
| Silver Burn | 7219 | 30 | 30S | 4E | 3720 |
| Silver City | Ida.12 | 6 | 5S | 3W | 6400 |
| Silver Creek | 942 | 25&26 | 29S | 13E | 4900 |
| Silvies | 951 | 35 | 32S | 33E | 6900 |
| Siskiyou Summit | 728 | 17 | 40S | 2E | 4630 |
| Snow Mountain | 965 | 1 | 19S | 26E | 6300 |
| South Fork Canal | 7218 | 12 | 33S | 3E | 3500 |
| South Mountain #2 | Ida.13 | 35 | 7S | 5W | 6340 |
| Starr Ridge | 247B | 20 | 15S | 31E | 5156 |
| Still Creek | 451 | 25 | 3S | 8½E | 3700 |
| Stinking Water | 135 | 33 | 21S | 34E | 4800 |
| Strawberry | 837 | 4 | 40S | 16E | 5600 |
| Summer Rim | 841 | 15 | 33S | 16E | 7200 |
| Summit Springs | 184 | 9 | 6S | 37E | 6000 |
| Sun Mountain | 836 | 22 | 32S | 7½E | 5350 |
| Tamarack | 342 | 8 | 15S | 25E | 4800 |
| Tangent | *** | 28 | 18S | 10E | 5400 |
| Taylor Butte | 842 | 16 | 33S | 11E | 5100 |
| Taylor Canyon | Nev.12 | 35 | 39N | 53E | 6200 |
| Taylor Green | 185 | 3 | 6S | 42E | 5740 |
| Three Creeks Meadows | 331 | 3 | 17S | 9E | 5600 |
| Tilly Jane-Mt. Hood | 432 | 15 | 2S | 9E | 6000 |
| Tipton | 142 | 34 | 10S | 35½E | 5100 |
| Tollgate | 212 | 32 | 4N | 38E | 5070 |
| Trap Creek | 741 | 1 | 27S | 4E | 3800 |
| Tremewan Ranch | Nev.11 | 9 | 39N | 55E | 5700 |
| Upper Buckskin | Nev.2 | 11 | 45N | 39E | 7200 |
| Upper Jack Creek | Nev.10 | 9 | 42N | 53E | 7250 |
| Vidae | *** | 28 | 16S | 2E | 800 |
| Wagner Butte | 7213 | 1 | 40S | 1W | 6900 |
| Waldo Lake | 521A | 15 | 21S | 6E | 5500 |
| Weaver Creek | *** | 35 | 22S | 1E | 2440 |
| Whaleback | 7217 | 3 | 31S | 2E | 5140 |
| White Branch Slide | *** | 15 | 16S | 7E | 2800 |
| Whitewater Bridge | *** | 28 | 10S | 7E | 2175 |
| Willamette Pass | 323 | 21 | 24S | 5½E | 5600 |
| Windigo | 744 | 20 | 25S | 6E | 5800 |
| Yamsey (COPCO) | Oreg. | 20 | 31S | 11E | 4600 |
| 76 Creek | Nev.4 | 6 | 44N | 58E | 7100 |

The following organizations cooperate in the Oregon snow survey work:

STATE

Idaho Cooperative Snow Surveys
Nevada Cooperative Snow Surveys
Oregon Agricultural Experiment Station
Oregon State Engineer and corps of State Watermasters
Oregon State Highway Engineers

FEDERAL

Department of Agriculture
  Forest Service
  Soil Conservation Service
Department of Commerce
  Weather Bureau
Department of the Interior
  Bonneville Power Administration
  Bureau of Reclamation
  Fish and Wildlife Service
  Geological Survey
  Indian Service
  National Park Service
Department of National Defense
  Army Engineer Corps

PUBLIC UTILITIES

California-Pacific Utilities Company
Portland General Electric Company
The California Oregon Power Company

MUNICIPALITIES

City of Baker
City of La Grande
City of The Dalles

IRRIGATION DISTRICTS

Associated Ditch Companies
Central Oregon Irrigation District
Deschutes County Municipal Improvement District
East Fork Irrigation District
Grants Pass Irrigation District
Jordan Valley Irrigation District
Lakeview Water Users, Incorporated
Medford Irrigation District
Ochoco Irrigation District
Rogue River Irrigation District
Talent Irrigation District
Vale-Oregon Irrigation District
Warmsprings Irrigation District

PRIVATE ORGANIZATIONS

Amalgamated Sugar Company
South Wasco Soil Conservation District
The Crag Rats, Hood River, Oregon

Federal - State - Private

COOPERATIVE SNOW SURVEYS

—

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